

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO. 09/650,726
ATTORNEY DOCKET NO. Q60462

REMARKS

Claims 1-3 and 5-11 have been examined on their merits.

Applicants herein cancel claim 11 without prejudice and/or disclaimer.

Claims 1-3 and 5-10 are all the claims presently pending in the application.

1. The Patent Office objects to the written description as containing informalities.

Applicant herein amends the written disclosure to remove the informality, and no new matter has been added. Applicant respectfully requests withdrawal of the objection to the written disclosure.

2. Claim 11 stands rejected under 35 U.S.C. § 112 (1st para.) as allegedly containing subject matter that was not described in the specification. Applicant herein cancels claim 11 without prejudice and/or disclaimer. Applicant submits that the § 112 (1st para.) rejection of claim 11 is now moot, and requests withdrawal of same.

3. Claim 7 stand rejected under 35 U.S.C. § 112 (2nd para.) as allegedly being indefinite. Applicant herein amends claim 7 to recite “said at least one of said output signals” instead of “said some of said output signals.” Applicant submits that the § 112 (2nd para.) rejection of claim 7 has been overcome, and requests reconsideration and withdrawal of same.

4. Claims 1-3, 5-7 and 9-11 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Hanselmann *et al.*, *Real-Time Simulation Replaces Test Drives*, Test and Measurement World, February 15, 1996, pgs. 35, 36, 38 and 40. The rejection of claim 11 is now moot. Applicant traverses the § 102(b) rejection of claims 1-3, 5-7, 9 and 10 for at least the reasons discussed below.

To support a conclusion that a claimed invention lacks novelty under 35 U.S.C. § 102, a single source must teach all of the elements of a claim. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986). A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). A single source must disclose all of the claimed elements arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Thus, the cited reference must clearly and unequivocally disclose every element and limitation of the claimed invention.

Hanselmann *et al.* disclose, *inter alia*, an apparatus for testing the operation of an electronic unit by simulation. The apparatus comprises a subsystem for direct digital synthesis (DDS) that comprises a microprocessor sending input simulation signals to the electronic unit.

With respect to independent claim 5, Hanselmann *et al.* do not teach or suggest at least a programmable logic circuit that receives one or more output signals from a unit under test and that generates parameter values corresponding to the received output signals. The Patent Office alleges that, at page 36, col. 3, Hanselmann *et al.* disclose a programmable logic circuit that

receives output signals and generates parameter values. Specifically, Hanselmann *et al.* disclose that the “information specifying the signal parameters comes in from the master DSP at its own time step, through dual-port memory on the DDS board.” Hanselmann *et al.* further disclose that the “DDS DSPs run autonomously using this information, and they generate signals much faster than the vehicle simulation.” For Hanselmann *et al.* to fulfill the above-referenced recitation of claim 5 of the present invention, there would have to be some teaching or suggestion that the outputs from the brake pressure sensors, the steering angle value or the torque command value is processed by the DDS DSPs for use by the master DSP. The only teaching in Hanselmann *et al.*, however, is that signals are output from the DDS DSPs based on information received from the master DSP. There is no teaching or suggestion that the DDS DSPs receive output signals from the unit under test and parameterize the received signals to be accessed by the master DSP.

Assuming *arguendo* that the DDS DSPs do receive output signals from the unit under test and parameterize the received signals, there is no teaching or suggestion that the parameter values are generated at a first frequency by the DDS DSPs and are accessed at a slower frequency by the master DSP. All that Hanselmann *et al.* disclose is that the DDS DSPs generate input signals for the unit under test at a rate that is faster than the vehicle simulation executing in the master DSP. There is no teaching or suggestion that the DDS DSPs generate parameter values, based on output signals received from the unit under test, at a frequency that is greater than an accessing frequency.

Moreover, in Hanselmann, the sole component that receives output signals is the interface, which is not disclosed to be a microprocessor. There is no teaching or suggestion that

the interface, separate and apart from the master DSP or the DDS DSPs, generates parameter values based on output signals received from the unit under test, at a frequency that is greater than an accessing frequency. Furthermore, although the DDS DSPs are connected to the interface, there is no teaching or suggestion that the DDS DSPs receive output signals from the unit under test in response to an input signal.

In addition, the disclosure at page 36, col. 3 of Hanselmann *et al.* cited by the Patent Office fails to teach or suggest that the DDS DSPs receive any output signals and the parameter values generated by the master DSP correspond to the signals received. In the context of claim 5, the term “corresponding” is generally understood to mean that the generated parameter values are related to the signals received or a function of the signals received.

Finally, there is no teaching or suggestion in Hanselmann *et al.* of a storing circuit that stores the parameter values of the processed output signals. Since the DDS DSPs of Hanselmann *et al.* do not process output signals into parameter values, there is no requirement for a storing circuit for sharing the parameter values with the master DSP.

Based on the foregoing reasons, Applicant submits that Hanselmann *et al.* fail to teach or suggest all of the claimed elements as arranged in claim 1. Thus, Applicant submits that claim 5 is allowable, and further submits 1 allowable, and further submits that claims 6, 7, 9 and 10 are allowable as well, at least by virtue of their dependency from claim 5. Applicant respectfully requests that the Patent Office reconsider and withdraw the § 102(b) rejection of claims 5-7, 9 and 10.

With respect to claim 1, Applicant submits that claim 1 is allowable for at least reasons analogous to those discussed above with respect to claim 5, in that Hanselmann *et al.* fail to teach or suggest the processing of output signals generated from an electronic device under test at a first frequency in response to simulated input signals and a microprocessor that retrieves the stored processing results at a second frequency, where the second frequency is slower than the first frequency. Therefore, under *Hybritech* and *Richardson*, Applicant submits that claim 1 is allowable, and further submits that claims 2 and 3 are allowable as well, at least by virtue of their dependency from claim 1. Applicant respectfully requests that the Patent Office reconsider and withdraw the § 102(b) rejection of claims 1-3.

5. Claim 8 stands rejected under 35 U.S.C. § 103(a) as allegedly being anticipated by Hanselmann *et al.*, *Real-Time Simulation Replaces Test Drives*, Test and Measurement World, February 15, 1996, pgs. 35, 36, 38 and 40, in view of Turner (U.S. Patent No. 6,269,020). Applicant traverses the § 103(a) rejection of claim 8 for at least the reasons discussed below.

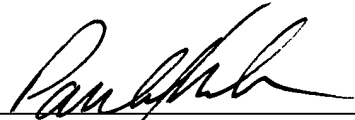
Since claim 8 depends upon claim 5 and since Turner does not cure the deficient teachings of Hanselmann *et al.* with respect to claim 5, Applicant submits that claim 8 is patentable at least by virtue of its dependency from claim 5. Therefore, Applicant respectfully requests that the rejection of claim 8 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Paul J. Wilson
Registration No. 45,879

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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